# KCWATER

Blue River Wastewater Treatment Plant

## BIOSOLIDS FACILITY PROJECT

## US ENVIRONMENTAL PROTECTION AGENCY

WIFIA PROGRAM

Letter of Interest • July 31, 2018

**Program Funding Year: FY 2018**
OMB Control No. 2040-0292

July 31, 2018

U.S. Environmental Protection Agency
WIFIA Program
Attn: Director, WIFIA Program
1200 Pennsylvania Avenue, NW (Mail code 4201T)
Washington, DC 20460

Subject: WIFIA Letter of Interest: *City of Kansas City, Missouri's Blue River WWTP Biosolids Facility Project*

Dear Director, WIFIA Program:

The City of Kansas City, Missouri, is excited about partnering with the U.S. Environmental Protection Agency to implement an affordable, long-term biosolids system to replace the aged incinerator processes. We are pleased to submit this Letter of Interest (LOI) package for the Water Infrastructure Finance and Innovation Act (WIFIA) Program for the *Blue River WWTP Biosolids Facility Project* (Project).

With WIFIA assistance, the City can implement this regionally critical capital improvement project while reducing the financial hardship on its overburdened ratepayers. The Blue River WWTP Biosolids Facility Project achieves the following:

1. Replaces and rehabilitates aging wastewater treatment infrastructure (constructed in the 1960s) that has reached the end of its useful life.
2. Allows for a semi-regional facility with the biosolids treatment capacity, reliability, and ability to comply with regulatory requirements through 2035.
3. Eliminates incineration of biosolids, which will improve regional air quality.
4. Produces higher quality biosolids, allowing for reduced restrictions for the reuse of biosolids in terms of marketing and distribution.

This project will be an example of an innovative approach that successfully blends optimization and refurbishment of existing infrastructure with a state-of-the-art technology not previously deployed in the Midwestern United States.

Please contact me at 816-513-0203 or Scott Parker at 816-513-0260 with any questions or if any additional information is required during your review of the City's Letter of Interest Package.

Sincerely,

Terry Leeds
Water Services Director
KC Water
City of Kansas City, Missouri

TL:SBC:bb

Enclosures: Enclosures

pw:\\Carollo/Documents\Client/MO/Kansas City/_Proposals/Blue River WWTP Solids Improvements/Permit\7-18-2018_WIFIA cover letter.docx

# LETTER OF INTEREST

*Provide the following information in this form or as narrative answers. Narrative answers can reference source documents (include the name of the document and relevant pages or sections). Provide any referenced documents as attachments.*

## Section A: Prospective Borrower Information

**1. Legal name of prospective borrower:**

City of Kansas City, Missouri

**2. Other names under which the prospective borrower does business:**

Not Applicable

**3. Department and division name:**

Kansas City Missouri Water Services Department (KC Water)

**4. Business street address:**

4800 E. 63rd Street
Kansas City, MO 64130

**5. Mailing street address (if different from above):**

4800 E. 63rd Street
Kansas City, MO 64130

**6. Website:**

www.kcwaterservices.org

**7. Employer/taxpayer identification number (EIN/TIN):**

44-6000201

**8. Dun and Bradstreet Data Universal Number System (DUNS) number:**

073134231

**9. Type of entity (check all that apply):**

☐ Corporation

- ☐ Partnership
- ☐ Joint Venture
- ☐ Trust
- ☒ Federal, State, or Local Governmental Entity, Agency, or Instrumentality
- ☐ Tribal Government or Consortium of Tribal Governments
- ☐ State Infrastructure Finance Authority
- ☐ Combination of the Above Entities

**10. Describe the organizational structure of the project(s) and attach an organizational chart illustrating this structure. Explain the relationship between the prospective borrower, the project, and other relevant parties. Include individual members or titles of the project team(s) and their past experiences with projects of similar size and scope. If multiple parties are involved in the project's construction, maintenance, and operation, describe the project's risk allocation framework.**

The Kansas City, Missouri, Water Services Department (KC Water) maintains and operates water collection, treatment and distribution systems; wastewater collection and treatment systems; and storm water management systems for 170,000 residential and business customers, and 64 industrial users in Kansas City, Missouri, and for 32 wholesale customers in the Kansas City region. The wastewater utility currently has 27 inter-jurisdictional agreements with wholesale customers and utility districts that are served by six wastewater treatment plants. These six wastewater treatment plants (WWTPs) provide wastewater service to the Blue River, Todd Creek, Westside, Birmingham, Rocky Branch, and Fishing River sewer basins, which together comprise the entire KCMO service area.

All WWTPs are regulated under specific Missouri State Operating Permits (MSOPs) issued by the Missouri Department of Natural Resources (MoDNR). The proposed Blue River WWTP Biosolids Facility Project (Project) will be implemented at the Blue River WWTP, which provides for over 95 percent of the service area's biosolids treatment/disposal.

KC Water, the prospective borrower, will be the responsible party for the Water Infrastructure Finance and Innovation Act (WIFIA) Loan and will oversee the Project's design, construction, and construction management. The Wastewater Treatment Division (WWTD), currently responsible for the day-to-day operation and maintenance of the WWTPs and residuals management, will also be responsible for the operation and maintenance of the new facilities at the Blue River WWTP.

KC Water contracted an Owner's Advisor (Carollo Engineers, Inc. and Jacobs Engineering, Inc., hereinafter referred to as Carollo/Jacobs) to complement City staff. By doing so, KC Water recognizes the benefits of including a consultant team experienced in design, alternate forms of project delivery, construction, and implementation of large, complex biosolids management projects.

The Carollo/Jacobs team brings extensive program implementation and biosolids treatment experience in all aspects of planning, design, and construction, including experience with the design, commissioning and operation of systems that thermally hydrolyze municipal biosolids, for some of the largest municipal utilities in the United States and around the world, including San Francisco, California; Washington DC; Dallas and Austin, Texas; and Milwaukee, Wisconsin. **With the Project team's (City and Owner's Advisor) established technical and financial experience and knowledge of local conditions, regulatory requirements, and political climate, successful implementation of the Blue River WWTP Biosolids Facility Project is assured.**

Attachment A-1 includes an Organizational Chart, which delineates key KC Water and Owner's team members. As shown on the organizational chart, these team members fulfill the roles required to successfully implement the Blue River WWTP Biosolids facility project from a Program Management/Oversight, Finance, Construction, Operation and Maintenance, and Public Involvement perspective. This integrated project team that has a proven track record completing similar projects on time and within budget. Over the last 5 years, the department has successfully implemented over $390 million in wastewater projects. That success is complemented by the work of the Owner's Advisory team, which has completed over 60 biosolids processing projects across the U.S. totaling over $2.1 billion. The experience of the KC Water Engineering and WWTD, as well as the Owner's Advisory Team, with projects of a similar size and scope is summarized in Attachment A-2. Key Project Team Members from KC Water and the Owner's Advisor, responsible for the management and implementation of the Project include:

Mr. Brent Herring - KC Water's WWTP Manager, Brent Herring, brings over 30 years of construction experience at large operating wastewater plants in the public sector and experience with numerous projects in the consulting sector. Prior to joining KC Water, Mr. Herring as the Narragansett Bay Commission's (Rhode Island) Bucklin Point WWTP Superintendent and oversaw a $70 M upgrade of the secondary treatment processes and a subsequent $40M upgrade for further nutrient reduction technology. Other representative projects include start-up services at the 1.2 billion gallons per day (bgd) wastewater plant in Hong Kong; operating documentation at the 326-million gallons per day (mgd) wastewater plant in Washington, DC; and WWTP documentation at the City of Phoenix's water plants and the Pima County (Tucson) 26-mgd Ina Road wastewater plant.

Mr. Matt Bond (KCMO) – Mr. Matt Bond, the Chief Engineering Officer for KC Water, brings 35 years of utility management and consulting experience in all aspects of planning, evaluation and design of water and wastewater facilities. Mr. Bond has specialized experience in wastewater solids processing systems, including evaluation, pilot testing, procurement, design, and operational troubleshooting for over 30 solids thickening, dewatering, stabilization, and biosolids utilization and disposal projects. Mr. Bond has served in various roles, including owner, designer, owner's advisor and contractor, for collaborative delivery projects, including design/build and construction management at risk. Mr. Bond was a past president of the Water Environment Federation, giving him knowledge of innovations in Biosolids processing programs around the world.

Mr. Lynn Norton (Carollo Engineers, Inc.) – Mr. Lynn Norton, is a Vice President/Senior Program Manager with over 40 years of experience, serves as the Client Project Manager responsible for the overall management and implementation of the Biosolids project. With experience and responsibility in the planning and management of over $40 billion in constructed facilities over his career, Mr. Norton brings industry best practices, knowledge and lessons learned from managing similarly complex wastewater projects, and large scale capital improvement programs. As a former Public Sector wastewater executive for the San Antonio Water System and City of Garland, Texas, Mr. Norton was responsible for planning and successful delivery of similarly complex aging infrastructure renewal, and process enhancement projects at existing operational wastewater facilities, which included Biosolids projects. He will provide management guidance as "Owner's Advisor" and technical leadership as the Design Professional services Project Manager on this project and will work closely with KCMO's Project Manager and the project design team to ensure the successful implementation of the project.

Mr. Patrick McCole (Carollo Engineers, Inc.) – Mr. Pat McCole, a Senior Vice President at Carollo, is the Principal-in-Charge of the Project and will participate on the Project's Advisory/Quality Assurance Committee. He has over 30 years of experience in planning, design and construction of water and wastewater treatment plants, major pump stations, large-diameter force mains and interceptor sewers, and water pipelines. He has served as project manager for facilities ranging in size from less than 1.0 mgd to more than 300 mgd. Mr. McCole will be responsible for ensuring staffing of the project, monitoring the Project budget and schedule; and allocation of resources to ensure timely completion.

For this project's risk allocation framework, KC Water will own and be solely responsible for the project's debt obligation, design, permitting, permit compliance, construction, maintenance, and operation of treatment and conveyance facilities within Kansas City, Missouri, including this project. KC Water, through appropriate contractual arrangements, will allocate certain project risks to other parties under contract with the City to design, construct, and commission the project. These activities will be based on normal industry practices and typical standards of care.

Early in the conceptual design phase, the City will determine the most beneficial project delivery methodology for the project. In terms of design and construction related risks, risk allocation will weigh heavily in the City's decision. The City will establish and maintain a risk register for this project throughout the design and construction phases.

No third-party governmental or private entities are responsible for this project, the debt service, or compliance with loan terms and conditions. Kansas City, Missouri, has sole responsibility for the project.

**11. If the prospective borrower is not a public entity or in the case of the prospective borrower being a state infrastructure finance authority, the sub-recipient(s) is not a public entity, is the project(s) publicly sponsored? Please explain.**

KC Water, a public entity, is the prospective borrower and project sponsor. The project has the support of the City of Kansas City, Missouri, City Council, and City Manager's Office.

**12. When will the prospective borrower be prepared to submit an application? (Assume invitations to apply will be issued approximately 90 days from the close of the letter interest submission period).**

Upon invitation to apply, KC Water plans to immediately start preparing the WIFIA Application Package for the Blue River WWTP Biosolids Facility Project. The timing of a WIFIA Funding Award largely matches the implementation timing of the project, with contractor procurement activities anticipated to start October 2019 and be completed by March 2020. After that, construction activities are anticipated to start in April 2020 and be completed within 2 years (April 2022).

## Section B: Project Plan

**1. Project name(s) *(for purposes of identification assign a short name to the project(s)):***

Blue River WWTP Biosolids Facility Project

**2. National Pollutant Discharge Elimination System (NPDES) and/ or Public Water System (PWS) number (if applicable):**

The Blue River WWTP operates under MSOP MO-0024911, which was issued on November 16, 2011, and expired on November 15, 2016. This permit continues in force until a new permit is issued. The City and MoDNR are currently working on the development and review of the proposed permit renewal.

**3. Project website(s):**

The Project does not have a website. However, at the start of the project implementation, the communication methods to reach out to various stakeholders will be identified and implemented and may include a project website or various social media avenues currently used by the City and KC Water.

KC Water's website is: https://www.kcwaterservices.org/

**4. Provide a brief description of the project(s) (major project scope items such as capacity, diameter and length, treatment components, and other design features):**

**The Blue River WWTP Biosolids Facility Project will replace and rehabilitate aging infrastructure and give the region a facility with the capacity and reliability needed to comply with solids management regulatory requirements through 2035.** The Blue River WWTP was constructed between 1964 and 1965 and expanded in 1987. It is a 120 mgd municipal wastewater treatment facility that discharges treated effluent into the Missouri River. KC Water's solids management program currently employs a centralized approach with the Blue River WWTP receiving and processing over 95 percent of the solids from the KCMO service area wastewater treatment plants.

The biosolids treatment process includes anaerobic digestion and then pumping of treated solids to the adjacent Birmingham Farm for land application. Existing biosolids process facilities include three onsite multiple hearth furnaces, of which two were modified with fume afterburners and venturi and impingement scrubbers, which were used to reduce emissions to the ambient air. Currently, only one of these incinerators is permitted by MoDNR to operate, and it only functions at 50 percent capacity. The majority of the biosolids incineration is currently processed through this one permitted incinerator. Incinerator ash, from the MHF, is conveyed by a wet transfer process and stored across the street from the incinerator complex in an ash lagoon.

As discussed in *TM 11 Solids Management of the KC Master Plan (*Attachment B-1), KC Water conducted a condition assessment at each of its six WWTPs in 2017. Included in the assessments were the process, mechanical, electrical, instrumentation, and building condition equipment and systems. According to the assessment, the Blue River WWTP facilities (constructed in the 1960s) were significantly deteriorated and improvements to the solids management processes were needed to meet anticipated solids capacity, reliability, and regulatory requirements through 2035.

The assessment also explored opportunities to further enhance regional biosolids infrastructure. From this, the current centralized biosolids treatment approach of treating over 95 percent of the service area's biosolids at the Blue River WWTP was affirmed as the preferred solution for biosolids treatment.

The proposed Blue River WWTP Biosolids Facility Project, includes the following elements:

- Provide up to 90 dry tons per day of solids capacity.
- Rehabilitation and upgrade of the existing anaerobic digesters.
- Construction of a thermal hydraulic processes (THP), which processes wastewater sludge.
- Demolition of the multiple heath furnaces (MHFs) #1, #2 and #3.
- Repurposing and expansion of the existing solids building to comply with current codes that would house thickening and dewatering equipment, polymer feed systems, feed pumps, grinders, a conveyance system for dewatered solids, and solids transfer pumps.
- Construction of a covered cake storage area to store dewatered solids and provide an area to load trucks for hauling cake to the landfill.
- Installation of a new biogas handling system (including biogas handling and steam generation to support the THP process), and replacement of the existing boilers (for high pressure steam generation). This system would be constructed such to provide future green capabilities including potential combined heat and power reuse options.
- Upgrade and replacement of obsolete electrical systems.
- Construction of side stream ammonia treatment facilities.
- Installation of new solids screening and degritting equipment.
- Modifications and reconstruction of the solids handling structures to accommodate the transition THP and dewatering verses incineration.
- The Building Information Model (BIM) which is a 3-D rendering of both existing and proposed assets used to reduce construction conflicts and allows for the better management of assets, once the project is commissioned.

The Project, identified in KC Water's 2018 Capital Improvement Plan (CIP) Update as the top priority project for implementation, replaces and rehabilitates aging infrastructure and incorporates improvements to address the region's future capacity needs while providing the flexibility needed to meet future regulatory requirements.

**5. Describe the project's purpose (including quantitative or qualitative details on public benefits the project(s) will achieve).**

The WWTD of KC Water is responsible for wastewater treatment and solids management in the department's service area. The WWTD identified the following four key areas targeted in its *City of Kansas City, Missouri Comprehensive Wastewater Master Plan* - Capital Improvements Plan (Attachment B-1):

- Aging Infrastructure Replacement – Improvements required to address the overall condition and capacities of the current facilities.
- Discharge Compliance – Improvements required to satisfy new effluent discharge permit limits, solids management requirements, and to provide a strategy for complying with potential future permit requirements and land application site limitations.
- Critical Reliability and Rehabilitation – Improvements to the existing treatment facilities to improve treatment efficiency and reliability.
- Operational Optimization – Improvements to reduce operation and maintenance costs or provide more reliable and consistent operation.

**The Blue River WWTP Biosolids Facility Project replaces and rehabilitates the aging solids handling infrastructure at the Blue River WWTP and gives the City more reliable solids treatment and handling capacity in the near-term and 2035 planning horizon while complying with future regulatory requirements, reducing environmental impacts, and encouraging beneficial reuse of resources.** With the Project, Kansas City can also stop incinerating solids, a potential regulatory risk with tightening air quality regulations. The Project provides the following benefits to the communities within the Blue River WWTP service area:

- Replaces Aging Infrastructure to Provide Reliable Capacity - The project replaces aging solids handling process units, which increase the reliability of the WWTP and the solids treatment facilities. A condition assessment performed on key solids handling equipment noted that it has numerous defects and its processes are rated as "significantly deteriorated." By rehabilitating or replacing aging infrastructure, the Project will:
  - Increase the useful life of the solids handling facilities for the next 30 years and beyond.
  - Utilize current technology to optimize power, water and natural gas use.
  - Ensures reliable management of solids in a cost-effective manner.

- Higher Quality Biosolids - Solids anaerobically digested at Blue River WWTP and aerobically digested at the Rocky Branch and Fishing River WWTPs are ultimately land-applied at the Birmingham Farm. Based on the current nitrogen-based (N-based) agronomic loading limits, the chosen solids management plan is anticipated to require acquisition of approximately 1,000 additional acres near the Birmingham Farm.

  The possibility of future regulations related to phosphorus-based (P-based) agronomic loading limits pose considerable risk to KC Water if they are incorporated into new permits. Based on the anticipated plant uptake of phosphorus, P-based agronomic loading

would require three to five times more land than N-based agronomic loading. Although the timeframe for the enactment of these limits is unknown, the wastewater master plan anticipated the construction of a dewatering facility at the Birmingham Farm to provide a means for transporting dewatered biosolids offsite if the acreage at the land farm is inadequate under future regulatory conditions. The use of a THP process will provide the flexibility in ultimate disposal by providing Part 503 Class A Biosolids instead of the current Class B product currently produced.

- Increased Operational Reliability - The proposed project rehabilitates or replaces aging solids handling infrastructure; the Blue River WWTP Biosolids Facility will ultimately be more reliable. The existing systems have performed well past their useful life and the continued use requires significant resources in labor and expense that is best applied to more effective technology. At the time of installation, the wastewater utility was served well with what was then an accepted practice both philosophically and well within the regulatory requirements at the time. As the body of science of water, air and biosolids practices becomes even more refined, this proposed approach will ensure operational reliability for the next three decades in the same manner that the decisions made three and four decades ago have provided.

**6. Describe the location of the project(s). Include a project map, if available, and/or latitude and longitude details.**

As shown on Figure B-1, the Blue River WWTP is located at 7300 Hawthorne Road, Kansas City, Missouri, 64120. The Blue River WWTP is located in Jackson County, north of the Blue River, at 39° 7'7.97"N latitude and 94°29'51.50"W longitude. The KC Water wastewater service area boundary encompasses the majority of the area tributary to the City's wastewater collection system, which totals approximately 320 square miles, as well as satellite communities.

With the current solids management program approach of centralization of the solids management services, the Blue River WWTP Biosolids Facility service area treats solids generated from KC Water's three largest WWTPs (Blue River WWTP, Birmingham WWTP and Westside WWTP) and covers approximately 325 square miles of the most developed portions of the City (as shown on Figure B-2). Figure B-3 provides an aerial view of the Blue River WWTP solids handling facilities. All figures are included in Attachment B-2.

**7. County(s) project(s) will serve:**

The Blue River Biosolids Facility Project serves portions of Jackson, Clay, Platte, and Cass County, Missouri, and Johnson County, Kansas.

**8. Population served by the project(s):**

The total population served by the Blue River Biosolids Facility Project, is 631,000 people. The Blue River Biosolids Facility serves the Blue River and Birmingham Westside sewersheds.

**9. Total population served by system:**

The total population served by KC Water is 631,000 people (2015).

**10. Type of project delivery method (i.e., design-build, construction manager at-risk, design-bid-build) that is planned for this project(s):**

KC Water has successfully used the design-bid-build and fixed-price design build project delivery methods on some of its most recent, important projects. As part of its preliminary design activities to be completed in September 2018, KC Water is working with its Owner's Advisor to determine the preferred delivery approach (e.g., design-bid-build, fixed price design-bid-build, or progressive design build) that will produce a design and project delivery approach achieving an acceptable risk profile while meeting budget, schedule, scope, and quality objectives.

11. **Present the overall project schedule in the provided table. Provide the detailed project schedule(s) as an attachment.**

KC Water's capital improvement plan identified the Blue River WWTP Biosolids Facility project as its top 2018 CIP project. KC Water developed a request for proposal for an Owner's Advisor to develop the Project's preliminary design documents, which were advertised on February 15, 2018. KC Water intends to execute an agreement with its Owner's Advisor in third quarter 2018. Table B-1 summarizes the overall project schedule, and Attachment B-3 includes an Overall and Detailed Project Schedule and Detailed Design/Construction and Schedules delineating planning, design, permitting, and construction tasks.

**Table B-1 Overall Project Schedule**

| | **Start Date** | **End Date** |
|---|---|---|
| Planning (including Pre-design, Scoping and CIP) | 7/15/2017 | 8/1/2018 |
| Design | 8/1/2018 | 3/15/2020 |
| Permitting/Environmental Compliance | 11/1/2018 | 11/1/2019 |
| Construction(1) | 4/15/2020 | 4/15/2022 |
| Facility Commissioning | 04/15/2022 | 8/15/2022 |

Note:
1) Design activities include: Design (8/1/18 to 10/15/19) and Contractor Procurement: 10/15/19 to 3/15/20.

The estimated financial close date is 1/31/2020 and aligns with the anticipated project schedule, as well as the city's traditional timeframe to sell bonds, which occurs every year or every other year depending on project needs.

**12. Provide any analysis (i.e. preliminary engineering reports, feasibility studies, preliminary designs, siting studies, project plans, etc.) completed in support of the project(s). List referenced documents below and provide as attachments.**

Planning for the Blue River WWTP Biosolids Facility Project started in 2008 with the development of the City of Kansas City Biosolids Project Report. In 2017, as part of the Wastewater Master Plan, KC Water completed a comprehensive evaluation of all six wastewater treatment plants, including the solids management facilities, and documented the findings and recommendations in a series of technical memorandums.

Table B-2 summarizes the technical memorandums and available documentation/analyses completed to date to support the Project. The referenced documents can be found in the Attachment B-4.

**Table B-2 – Summary of Technical Documentation**

| Attachment | Report/Study | Date |
|---|---|---|
| | City of Kansas City, Missouri, Biosolids Incineration Study for the Blue River Wastewater Treatment Plant Final Facility Plan | December 2009 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 3 (Regulatory Assessment) | March, 2015 |
| | City of Kansas City, Missouri Waste Water Master Plan, Capital Improvements Plan | December, 2016 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 11 (Solids Management) | May 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 4 (Blue River Service Area) | August, 2017 |
| | City of Kansas City, Missouri 2018-2035 Wastewater Capital Improvement Plan | February, 2018 |
| | KCMO Solids Capital Costs | September 2017 |
| | KCMO Biosolids Cost Revision 1 | October 2017 |
| | KCMO WWMP QBL Blue River Solids Revision 4 | November 2017 |

**13. Present the findings of any alternatives analysis or business cases conducted, if available. Describe the project alternatives considered and the rationale (i.e., lowest capital cost, greater ease of operation, most reliable, fewest environmental impacts, etc.) for the selected alternative; this description should include the technical, managerial, financial, environmental, operational and local decision making rationale for the selected approach. Provide any referenced documents as attachments.**

The Blue River WWTP Biosolids Facility Project was developed through a series of workshops and technical analyses starting in 2014. In December 2014, KC Water staff conducted an initial solids management workshop to discuss possible solids handling alternatives for each of its WWTPs on a site-specific and regionalized basis. The workshop determined that the proposed alternatives should focus on the following objectives:

- Incorporate reliable processes with a significant operation history.
- Incorporate relatively simple to operate solutions capable of standardization.
- Represent the best value over the project life cycle as determined from a Quadruple Bottom Line (QBL) analysis.
- Maximize the production and utilization of biogas, where applicable.
- Reduce the amount of sludge pumped between facilities.

For the Blue River WWTP, four biosolids process alternatives and eight different scenarios were identified for the solids treatment/management systems. This effort resulted in 32 unique treatment options for the Blue River WWTP. The three process alternatives selected for in-depth analysis were (1) all incineration, (2) all landfill, and (3) a blend of anaerobic digestion incineration and landfilling (similar to existing operations). As presented in the *City of Kansas City, Missouri Wastewater Master Plan, Technical Memorandum No. 11*, 24 of the 32 alternatives were evaluated further using specific evaluation criteria, including operational simplicity, low odor, conventional technology, and cost. Ultimately, the 24 alternatives were reduced to 12.

All analyses evaluated technical considerations, regionalization, the ability of the proposed alternative to achieve treatment and capacity goals, cost, environmental impacts and operational and site specific issues to identify a cost-effective preferred alternative. To further refine the project design, KC Water staff, the Owner's Advisor, and Consultant team are evaluating various treatment process alternatives to identify the preferred processes and design for the Project.

Cost opinions were developed for the proposed scenarios, including full digestion using thermal hydrolysis, partial digestion and multi-hearth furnaces, partial digestion and fluidized bed incineration, and lime stabilization. A QBL analyses was also conducted, which is a modified version of the industry-standard triple bottom line analysis described in our Wastewater Master Plan Technical Memorandum 2. Operations was added because KC Water did not think operability and maintainability were weighted enough in the traditional triple bottom line method.

The major criteria in KC Water's QBL analysis were environmental, community, operations, and financial (total cost of ownership). Environmental, community, and operations were equally weighted at 20 percent each, and financial was double weighted at 40 percent.

Based on the findings of the analysis and a second solids management workshop (June 2015), KC Water staff determined that a single management approach at the Blue River WWTP was undesirable since it was less flexible. The result of this approach would put KC Water's solids management approach in jeopardy if the selected disposal route became unavailable. The overall solids management planning approach was then revised to focus on using the existing infrastructure (anaerobic digestion and incineration) and providing additional required solids processing capacity through landfilling.

Subsequently, KC Water questioned whether local landfills could reliably receive biosolids. As a result, most of the alternatives selected for in-depth analysis were no longer valid. In response, KC Water selected four alternatives to analyze in depth: anaerobic digestion using thermal hydrolysis, digestion and multi-hearth incineration, digestion and fluidized bed incineration, and lime stabilization. The analysis involved determining capital, operations, and maintenance costs to develop a total cost of ownership.

A workshop was held on November 2, 2018, to develop a QBL for each alternative. The WWMP QBL scoring for each major criteria was modified to include only those relevant to the biosolids options, since this methodology was applied to alternatives in the wastewater master plan only.

In the operational category, lime stabilization was the most advantageous, and thermal hydrolysis was a close second. Financially (total cost of ownership), multi-hearth furnace and digestion was the cheapest, followed closely by lime stabilization. Thermal hydrolysis and fluidized bed incineration were more expensive.

For community effects, thermal hydrolysis was rated above both incineration options, with lime stabilization significantly below all other options because it produces significant odor emissions and increases traffic and chemical delivery. In contrast, thermal hydrolysis reduces odor emissions and involves green solutions with community benefits. Thermal hydrolysis also won the environmental category decisively because it allows for more resource recovery and reuse and reduces regulatory risk by eliminating grandfather limits on the plant's multi-hearth furnaces and reducing the department's greenhouse gas footprint.

From the QBL, the final scoring resulted in full digestion using thermal hydrolysis being chosen. This was due to significantly higher environmental and community scores, despite a higher cost of ownership. KC Water agreed with this result, providing a concrete example of Kansas City's commitment to sustainable infrastructure, as documented in "Feasibility of Clean Energy Initiatives" Report. The report was adopted by City Resolution 170586 and is included here as Attachment B-5.

**14. If available, provide a copy of the system master plan or like document and list referenced document below.**

In 2017, KC Water completed a comprehensive evaluation of all six wastewater treatment plants, solids management facilities, odor control facilities, energy and resource recovery opportunities, industrial pretreatment program, and capacity, management, operation, and maintenance (cMOM) program, in its updated Wastewater Master Plan.

Table B-3 summarizes the documents that comprise the Master Plan, which are included as Attachment B-6 to the WIFIA Package.

**Table B-3 – Summary of Technical Documentation**

| Attachment | Report/Study | Date |
|---|---|---|
| | City of Kansas City, Missouri, Biosolids Incineration Study for the Blue River Wastewater Treatment Plant Final Facility Plan | December 2009 |
| | Kansas City, Missouri Water Services Department, Overflow Control Plan | January 2009<br>Revised April 2012 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 1 (Initial Planning) | October 2014 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 2 (Decision Making Framework) | December 2014 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 3 (Regulatory Assessment) | March 2015 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 4 (Blue River WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 5 (Westside WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 6 (Birmingham WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 7 (Rocky Branch WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 8 (Fishing River WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 9 (Todd Creek WWTP) | August 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 10 (Little Blue Valley Sewer District) | August 2017 |

| Table B-3 – Summary of Technical Documentation | | |
|---|---|---|
| **Attachment** | **Report/Study** | **Date** |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 11 (Solids Management) | May 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 12 (Blue River WWTP Odor) | December 2015 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 13 (Energy and Resource Recovery) | May 2016 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 14 (Asset Management) | September 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 15 (cMOM) | July 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 16 (Industrial Pretreatment) | August 2016 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 17 (Wastewater SCADA Evaluation) | October 2017 |
| | City of Kansas City, Missouri Waste Water Master Plan, Technical Memorandum 18 (Capital Improvement Program) | December 2016 |
| | City of Kansas City, 2018 Capital Improvement Program | February 2018 |

**15. Briefly discuss any other issues that may affect the development and financing of the project(s), such as community support, pending legislation, permitting, or litigation.**

The City of Kansas City, Missouri, and KC Water do not anticipate any issues that would affect the final design, construction, or financing of the Blue River WWTP Biosolids Facility Project. Project planning efforts have been underway since 2014 and were completed in July 2017. Preliminary design efforts are currently underway to finalize the final design concept. The preferred project delivery method and 100 percent design documents will be completed by October 2019, and the required procurement documents will be completed by March 2020. Construction should begin in April 2020 and will take approximately two years to complete (April of 2022). Project startup/commissioning will be in 2022.

KC Water staff members have kept the City Council up to date on the Project's progress and decisions, and the Project has the support of the City of Kansas City, City Council. Consultant and contractor contracts will require City Council approval, but no issues with obtaining the approvals are anticipated. As an example, the Design Professional/Owner's Advisor Contract was approved in July 2018.

No litigation matters are pending against the City or the WWTP that would prevent the Project from proceeding.

**16. Describe the authorizing actions (e.g., local vote, board vote, and ordinance) that would need to occur in order to enter into a loan agreement with the WIFIA program.**

For the City of Kansas City, Missouri, and KC Water to enter into a loan agreement with the WIFIA program for the Blue River WWTP Biosolids Facility Project, KC Water will need to present the WIFIA Loan Agreement/Financial Terms to the City Council and obtain an Authorizing Resolution to permit the KC Water to enter into and adopt a resolution approving the final WIFIA Agreement.

The Project will be financed using a revenue bond indenture authority granted to KC Water by its customers. This authority was granted to the agency by a vote of the public in August 2012 and allowed for the issuance of up to $500 million in Revenue Bonds specifically for wastewater projects. As of July 2018, $160 million of that original authorization remains, a portion of which will be used to fund the Blue River Biosolids Facility project.

Through its CIP process, which occurs every year and involves staff from the department's administration, engineering, asset management, finance, operations, and maintenance divisions, the Blue River WWTP Solids Facility was identified as the top priority project for Fiscal Years 2019-2020. Throughout 2016 and 2017, a 16-member Mayoral-appointed task force met and held a series of public meetings to analyze the financial aspects of Kansas City's current and long-term water, wastewater, and stormwater needs. In June 2017, the task force produced a list of recommendations, which can be found at https://www.kcwaterservices.org/wp-content/uploads/2016/03/Final-Recommendations.pdf.

The following recommendations were included:

- The City should include the pursuit of state and federal funds for water and wastewater infrastructure in its legislative agenda.
- KC Water should reduce future utility rate increases with revenue (when available) from state and federal programs.

Throughout the Project planning and preliminary design phases, staff members have provided updates to KC Water management and the City of Kansas City, Missouri, City Council about the project, its costs, and compliance with the recommendations of the task force. As a result, no issues with entering into a loan agreement with the WIFIA program are anticipated.

**17. Present the environmental review plan and status of such for the project(s). Describe the status of any additional permits and approvals that the project(s) may require.**

Upon invitation to apply for WIFIA funding, KC Water will initiate the development of environmental documents and the required federal crosscutter documents to meet all federal environmental requirements. The Project is anticipated to fall under a Notice of Exemption

(NOE) or an Initial Study/Mitigated Negative Declaration (IS/MND), because it is located within the existing plant boundaries, entails replacing aging infrastructure and upgrading existing processes, and does not include an expansion in capacity.

KC Water anticipates circulating the environmental documentation for a 30-day public review period prior to City Council Adoption. The overall environmental documentation timing will take three to six months and will be completed before a WIFIA loan is issued.

Other required permits and approvals potentially required for the Project include: Local (e.g., City of Kansas City Boiler Permits), Regional (e.g., grading), and State (e.g., NPDES permit modifications, Air Quality Permit, Construction Permit, etc.). These permits and approvals will be acquired before starting construction. At this time, no additional permit requirements or approvals are anticipated for the Project's construction. **KC Water does not anticipate any issues or difficulties in securing required permits or environmental compliance documents.**

**18. If applicable, describe community outreach efforts conducted to date and planned for the project(s).**

The Blue River WWTP Biosolids Facility Project construction activities are located within the existing WWTP boundaries, which could reduce the need for extensive public community outreach. Nevertheless, community outreach is a key element of KC Water's policies.

As part of its overall strategic goals, KC Water wants to maintain a good public image. To that end, WWTP management is responsible for maintaining communications with the public to inform it of the facility's status and of any new regulations or requirements with potential economic or social impacts. This is primarily accomplished through presentations at City Council meetings and public speaking events.

KC Water staff members have informed the public of the Blue River WWTP Biosolids Facility Project through regular presentations and updates at City Council meetings. Information presented at these meetings is also made available for public record.

In addition, for the duration of Project design and construction activities (36 months), KC Water staff has contracted with a consultant to supplement its staff in facilitating public outreach activities, including developing a Public Involvement Plan that involves project messaging, identification of public involvement opportunities, social media engagement (project website, email blasts to key stakeholders and neighbors), project documentation, key messaging, schedule of activities, workshops/presentations, and plan measurement metrics. In addition, KC Water will develop community education activities, such as Project tours (high school, City Council Members, university students, and community stakeholders) and will help develop educational materials and curriculum about the Project.

**As appropriate, KC Water will promote the project to help facilitate awareness locally, regionally, nationally, and internationally.**

**19. Indicate if the project is located in, close to, or could impact the 100-year floodplain.**

☐ Located in 100-year floodplain
☒ Close to 100-year floodplain
☐ Could impact 100-year floodplain
☐ None of the Above

The Blue River Biosolids Facility Project is located completely outside of the 100-year floodplain as shown in Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 29095C0276G (Attachment B-7). The Blue River WWTP is located behind a levee that provides more than the 500-year level of protection for existing and proposed wastewater and solids management facilities, as required for Critical Facilities of this type per Chapter 28 floodplain management regulations of the City and related federal 44 CFR regulatory requirements. KC Water is committed to developing guidelines and response measures to address flood risks at the WWTP and within the community.

## Section C: Project Operations and Maintenance Plan

**1. Provide the estimated useful life of the project(s) and describe the underlying assumptions. In determining the useful life of the project(s), please consider the useful economic life of the asset(s) to be financed.**

The proposed Project involves installing new equipment, including structural and mechanical components, upgrades or modifications to existing facilities, and general rehabilitation and repair elements as presented in Section B, Question 4. Implementing the elements will either lead to installing new structures or restoring existing structures to their original condition. The estimated useful life values for different types of assets are assumed to be as follows:

- Mechanical – 25 years.
- Structural – 40 years.
- Electrical – 25 years.
- Instrumentation – 25 years.
- Civil/Site work – 40 years.
- Yard Piping – 100 years.

Most of the Project elements consist of concrete and steel structural improvements. Based on the project elements, the estimated useful life of the Blue River Biosolids Facility Project facilities for all structural components is 40 years. For mechanical and electrical components, such as pumps, pipes, valves, motor control centers, switchgear, actuators, and mechanisms, it is 25 years, assuming proper maintenance and timely rehabilitation activities. The KC Water staff conducts regular operation and maintenance activities to ensure the upkeep of WWTP facilities.

**2. Provide the project(s)'s operation and maintenance plan, including sources of revenue to finance those activities, any performance guarantees, and major maintenance reserves. A preliminary or draft plan is acceptable.**

The KC Water Wastewater Services Division has numerous operations manuals, plans, and manufacturers' manuals which constitute the body of knowledge for operations and maintenance practices at the Blue River WWTP. These documents are supplemented by various operating procedures that are continually updated and refined to address changing conditions at the plant and in the field. The documentation delineates and addresses the WWTP facilities by process area (process descriptions, process operations, instrumentation and control logic, and general procedures). The plan also documents operational procedures currently in-place, and enhancements and modifications that can be made to more effectively and consistently achieve regulatory compliance. KC Water continues to invest in maintaining state of the art operations and maintenance practices, having recently engaged a consultant team to continue the provision of operation and maintenance O&M services including business processes understanding, training, process control and effective utilization of all resources provided to enable the highest level of operations and maintenance to protect public health.

In addition, KC Water has a computerized maintenance management program (Infor-Hansen) that it has used since the early 2000s. WWTP Program documents, consistent with other City and Department plans, summarize planning, organization, staffing, direction, training, public relations/outreach, and emergency planning for all emergency types. Coordination with the City's emergency operations center and other jurisdictions is implemented in the event of region-wide catastrophic events.

The WWTP constitutes a major expenditure of money, manpower, and materials to ensure the health and safety of citizens and protect the Blue River Basin. KC Water has a Wastewater Treatment Division responsible for all operation and maintenance activities associated with the WWTP and solid management processes. Operations staff is certified in its areas of expertise, as required, and in many cases exceeds minimum requirements. Maintenance staff consists of electrical, instrumentation, and mechanical maintenance trades and management staff.

To support its 24-hour/7-day a week operation, the WWTD uses a computerized maintenance management system and outside contractors as needed. Other KC Water staff and City Departments also provide ongoing support as needed, with regular training provided to develop and enhance staff's skillsets.

KC Water's total Sewer Fund budget is $220,746,711 for fiscal year 2019 (May 2018 through April 2019). With these funds, the department works "to improve the City's physical infrastructure with special attention to … [the] water/sewer system." Departmental strategic objectives include a commitment to "develop[ing] environmentally sound and sustainable infrastructure strategies" and "[engaging] in efforts to strategically invest in the City's infrastructure."

The operations and maintenance budget, allocates resources to cover yearly maintenance and operations costs, considering the current operating plan, preventative and corrective maintenance requirements, chemical needs and other supplies. Capital expenditures consider longer term goals such as plant upgrades or major equipment replacement or repair. KC Water's funding to support this budget comes from wastewater rates.

The Fiscal Year 2019 operation and maintenance budget, including the sewer collections, conveyance, WWTP, and solids handling is approximately $133 million. Upon project completion, the O&M costs are anticipated increase by approximately $1.3 million. KC Water's policy is to have at least 120 days of annual O&M expenses set aside as a reserve. At the end of Fiscal Year 2018 (04/30/2018), the Sewer Fund had an unrestricted cash balance of roughly $215M, equal to 344 days of cash on hand.

### 3. Describe any contractual arrangements that may impact the operation of the project(s).

KC Water has a Wastewater Treatment Division that provides for all operation and maintenance activities associated with the WWTP and solid management processes. KC Water employs a full complement of operations and maintenance staff with minimum and sometimes even exceptional requirements. Operations staff consists of operators, senior and chief plant

operators, and management staff. Maintenance staff consists of electrical, instrumentation, facility, and mechanical maintenance trades and management staff. Operations and maintenance personnel are trained as needed, such as when new assets go online, and continually participate in upgrade and refresher training courses. Training also incorporates safety and soft skills training to enhance work practices and to build a solid team environment.

To support its 24-hour/7-day a week operation, the WWTD uses outside contractors as needed for supplemental and capital maintenance, as well as to provide immediate response to support emergency repairs. Other KC Water and City departments provide ongoing support as needed, with regular training provided to develop and enhance staff's skillsets. WWTD staff work closely with Engineering, Collection/Distribution System Preventative Maintenance, Utility Repair and Stormwater Divisions to ensure effective responsiveness.

KC Water's WWTD is responsible for the overall operations and maintenance of its WWTP and biosolids facilities. In addition, the City's Procurement and Purchasing Groups have several mechanisms available to WWTD's staff to obtain services for immediate or emergency equipment and systems repair and replacement, including multi-year and multi-discipline contracts to address a wide range of needs. The Division has a rolling stock fleet consisting of vehicles and equipment to perform routine and emergency repairs as needed. It also maintains its own warehouse, stocked with parts, supplies, and spares, to address most situations. Critical systems have special emphasis.

KC Water also participates in several formal and informal multi-jurisdictional agreements with other utilities and governments who would provide needed support if significant events occur. KC Water also has operational agreements that can be leveraged to support existing staff with various WWTP maintenance services, including sensor repair and installation, Programmable Logic Controllers (PLC) and supervisory control and data acquisition (SCADA) programming, pipe repairs, high-pressure boiler repairs and equipment, pump repairs, piping repairs and replacement, and valve repairs/replacement projects.

KC Water anticipates additional contractual or partnership arrangements from the Project. For example, KC Water has been exploring the feasibility of providing reuse water in exchange for steam with its commercial and utility neighbors. Within this project, the feasibility of these options, including green options such as biogas recovery for electrical generation for supply to neighboring facilities or for supplemental natural gas use, could be options.

## Section D: Financing Plan

### 1. Estimated total eligible project costs (in dollars):

As articulated in the 2018-2035 Wastewater Capital Improvements Plan, the official capital cost estimate for the Blue River WWTP Biosolids Facility Project is $100 million, exclusive of financing and interest costs. This amount includes planning, permitting/environmental documentation, design, and construction fees. As defined in the WIFIA program handbook, all of the Project's capital costs are eligible for WIFIA financing. Attachment D-1 provides an overview of these costs broken down by project phase.

### 2. Requested amount of the WIFIA loan (in dollars):

**Table D-1 Estimated Sources and Uses of Funds**
**Blue River WWTP Biosolids Facility Project**

| **Sources Category** | **Estimated Dollar Value (Alternative 1 - w/ SRF financing)** | **Estimated Dollar Value (Alternative 2 - w/revenue bond financing)** |
|---|---|---|
| 1. WIFIA Loan | $49 million | $49 million |
| 2. Revenue Bonds | $0 | $51 million |
| 3. SRF Loan | $51 million | $0 |
| 4. Borrower Cash | $0 | $0 |
| **TOTAL SOURCES** | $100 million | $100 million |
| **Uses Category** | **Estimated Cost** | **Estimated Cost** |
| 1. Planning | $0 | $0 |
| 2. Design | $6 million | $6 million |
| 3. Permitting/Environmental Documentation | Included in Design Costs | Included in Design Costs |
| 4. Construction | $80 million | $80 million |
| 5. WIFIA Financing Costs | $500,000 | $500,000 |
| 6. ESDC/CM | $2 million | $2 million |
| 7. Land Acquisition | Not applicable | Not applicable |
| 8. Other Capital Costs | $0 | $0 |
| 9. Contingency | $11.5 million | $11.5 million |
| 10. Total Capital Costs | $100 million | $100 million |
| 11. Ineligible Costs (if applicable) | None | None |
| **TOTAL USES** | $100 million | $100 million |

As articulated in the 2018-2035 Wastewater Capital Improvement Plan, the Blue River WWTP Biosolids Facility Project has a projected capital cost (separate from interest and issuance costs) of $100 million. Assuming WIFIA-eligible project costs are $100 million, and using the maximum 49 percent allowable amount from the program, the total requested amount of the WIFIA loan for the proposed project is $49 million dollars.

**3. Provide a sources and uses of funds table for the construction period(s), including the proposed WIFIA assistance. Note any ineligible project costs. More information about eligible costs is available in the WIFIA program handbook.**

Table D-1 provides the estimated sources and uses of funds for the Project based on the potential financing scenarios discussed in Table D-1.

4. **Provide a narrative describing the project(s) plan of finance. This should include a discussion of the proposed financial structure and any existing ratings on the security pledged for repayment of the WIFIA loan (if available) or a description of how the senior debt obligations will garner an investment-grade rating(s). Note availability and credit terms of other project funding sources. Include any preliminary revenue projections and explain underlying assumptions.**

KC Water operates and maintains the water, wastewater, and stormwater systems for the City of Kansas City. The Wastewater Fund is one of the City's enterprise funds. The cost to provide utility service is covered solely by customers through rates, fees, and charges for service. These enterprises are the backbone of community and economic development in the Kansas City area.

KC Water has an established track record of successfully delivering quality service to its customers, and it continues its mission of being a customer-service-oriented, data-driven utility. KC Water uses this approach when planning and delivering its capital program, leading to the delivery of over $390 million in of wastewater projects over the last 5 years.

KC Water also follows comprehensive financial planning policies and practices that allow for strong financial metrics related to cash reserves and debt-service coverage. This has largely been achieved because staff is willing to recommend and elect leaders pass sufficient rate increases to fund the utility's needs. To illustrate this, the department has raised wastewater rates 291 percent since 2010 to meet the requirements associated with its Consent Decree. This has created a stable and predictable revenue stream reflected in the utility's strong credit ratings. This rating reflects the utility's ability to repay its debt quickly.

Based on the ratings associated with the utility's existing wastewater debt portfolio, the security associated with WIFIA funding and the Blue River WWTP Biosolids Facility Project would anticipate an investment grade (AA) debt instrument per Standard and Poor's (S&P) and (Aa2) Moody's. The indenture associated with the security is part of a $500 million bond authorization approved by the voters in August 2012. As of April 2017 (end of Fiscal Year 2017, latest audited financial statements), KC Water has approximately $424 million of outstanding parity lien Revenue Bonds rated "AA" by Standard & Poor's and "Aa2" by Moody's. Both ratings are well

above investment-grade rating thresholds. Copies of the most recent Moody's and S&P rating reports from January 2018 are included as Attachment D-2.

A WIFIA loan would be secured and repaid pursuant to the Indenture's Net Revenues pledge. Based on the Indenture's Rate Covenant, KC Water's financial policy states that it must set rates and charges in each year such that Net Revenues, including available fund balances, are at least 1.30x (Debt Service Coverage). For fiscal year FY2017 (audited), the Wastewater Fund had a Debt Service Coverage Ratio of 2.97x. For FY 2018 (unaudited), the Debt Service Coverage Ratio was 3.06x, well above the minimum requirements. In addition, KC Water maintains a Renewal and Replacement Fund equal to the annual depreciation expense associated with the Wastewater Utility Assets. At the end of FY2017, this fund had a balance of $41M.

**If the prospective borrower is a pool of eligible borrowers and projects, discuss the existing ratings and repayment schedules of the underlying borrowers and attach supporting documentation as available.**

KC Water is the only prospective borrower for these funds. WIFIA funds will only be used for the Blue River WWTP Biosolids Facility Project.

**5. Describe the proposed credit terms of the WIFIA assistance including the security pledge, the lien position, maturity date (term), and amortization structure (e.g. straight-line or sculpted). State whether the WIFIA loan will be issued on a senior or subordinate lien.**

KC Water plans to use WIFIA loan funding and a mix of revenue bonds or SRF financing to fund the Blue River WWTP Solids Improvements Project. In 2018, the department adopted a 5-year CIP, which is the base-case scenario, and assumes that city-issued revenue bonds will fund the full cost of the Project.

To the extent that state and federal funds are made available to fund eligible Project costs, two alternative financing scenario are presented. Alternative 1 assumes that up to 51 percent of eligible costs would come from a $51 million SRF loan, with the rest funded with a WIFIA loan ($49 million). Alternative 2 assumes 49 percent of Project costs are funded with a WIFIA loan and the balance with revenue bonds. Both alternatives assume that the maximum allowable amount from a WIFIA loan would be $49 million. In both cases, the authorization to cover project costs comes from a public voter approval in August 2012, of which $160 million in authorization remains.

KC Water anticipates that the WIFIA assistance credit terms will be a maturity date of 30 years, with a security pledge of assets associated with the solids processing process. The lien position would be parity debt to existing wastewater bonds and the amortization would be a level debt service schedule.

**6. Describe the prospective borrower's financial condition.**

KC Water conducts an annual independent audit of its financial statements. The City's outside auditor is BKD CPAs and Advisors. Over the last five years, no material findings were made associated with any enterprise fund managed by KC Water. Currently, KC Water is up to date on all outstanding debt service payments related to the wastewater utility.

At the end of Fiscal Year 2018 (04/30/2018), the Sewer Fund had an unrestricted cash balance of roughly $215M, which is equal to 344 days of cash on hand, and a debt service coverage ratio (the ratio of net income to annual debt service expenses) of 3.06x. At the end of the last audited year (FY2017), the Wastewater Utility had current debt service of $37.2M. The utility's policy is to maintain at least 120 days cash on hand and a debt service coverage ratio of 1.3x.

**7. Provide the year-end audited financial statement for the past three years, as available as an attachment. Provide the financial statement filenames in the textbox.**

Please refer to Attachment D-3 for three years of audited financial statements including:

- 2015 Audited Statements (File Name: Section D, Q7 FINAL-2015 City of Kansas City Sewer Report).
- 2016 Audited Statements (File Name: Section D, Q7 FINAL-2016 City of Kansas City Sewer Report).
- CAFR 2017 (File Name: Water CAFR –2017).

**8. Attach a financial pro forma which presents key revenue, expense, and debt repayment assumptions for the revenue pledged to repay the WIFIA loan through the final maturity of the proposed WIFIA debt, including up to three years of historical data, as available. The pro forma should be provided in an editable Microsoft Excel format, not in PDF or "values" format. The pro forma should include at a minimum the following:**

- Sources of revenue.
- Operations and maintenance expenses.
- Dedicated source(s) of repayment.
- Capital expenditures.
- Debt service payments and reserve transfers, broken down by funding source and including the WIFIA credit assistance.
- Projected debt service coverage ratios for total existing debt and the WIFIA debt.
- The project's or system's debt balances broken down by funding sources.
- Equity distributions, if applicable.

**If available, include sensitivity projections for pessimistic, base and optimistic cases. A sample financial pro forma is available at https://www.epa.gov/wifia/wifia-application-materials-and-resources. Provide the financial pro forma filename in the textbox.**

See Attachment D-4 (Pro Forma - Wastewater Utility.xlsx).

**9. Has the prospective borrower consulted with the applicable State Revolving Fund (SRF) program to procure SRF funding? If so, indicate whether it is applying for the SRF funding and where it is in the application process.**

Over the past 6 months, KC Water has engaged with representatives from the Missouri State Revolving Fund on multiple occasions. Due to the size of the Blue River WWTP Solids Processing Improvements project, the nature of conversations to this point have revolved around whether the state funding agency had adequate authority to cover any of the Project's funding. From the feedback KC Water has received, the Missouri SRF program appears to have sufficient funds to cover a portion of the costs associated with this project. As a result, senior management staff at KC Water has opted to go forward with the application for SRF funding. The initial application is currently being prepared.

## Section E: Selection Criteria

*For each selection criterion, provide a response explaining the extent to which the project seeking the WIFIA loan relates to the criterion. When applicable, reference attachments. Detailed definitions for each selection criteria are provided in the WIFIA program handbook available at www.epa.gov/wifia.*

**1. National or regional significance: Describe the extent to which the project is nationally or regionally significant, with respect to the generation of economic and public benefits, such as (1) the reduction of flood risk; (2) the improvement of water quality and quantity, including aquifer recharge; (3) the protection of drinking water, including source water protection; and (4) the support of international commerce.**

Biosolids treatment for the City's Wastewater Treatment operations is largely centralized at the Blue River WWTP location, which treats over 95 percent of the biosolids generated from the City's wastewater system service area.

The Project deploys a state-of-the-art THP, as discussed in Section B, Question 13), the first of its kind in the Central United States, which will further maximize the remaining useful life of the Blue River WWTP. Implementation of THP provides KC Water with the ability to comply with more stringent effluent discharge permit limitations in the future, if adopted by the MoDNR. KC Water continues to support the incorporation of environmentally sustainable and innovative concepts in their project designs, as well as supports the development of green infrastructure.

**This Project will be an example of an innovative approach successfully blending optimization of existing infrastructure with a state-of-the-art technology not previously deployed in the area.** With many other utilities in the Midwest facing the same challenges associated with aging infrastructure, there is an opportunity to deploy new technologies to help sustainably and economically meet future needs. This Project provides a pragmatic, but innovative approach to meeting wastewater service requirements.

The project has regional significance in terms of environmental protection, including:

- Reducing biosolids by applying a state-of-the-art biosolids stabilization and energy production (i.e., using the THP), coupled with refurbished anaerobic digesters, enhanced solids screening, handling, and dewatering processes.
- Providing "Class A" biosolids, which will be beneficially applied to farm lands to safely enhance soil nutrients and soil condition and avoid disposal at sanitary landfills, conserving regional landfill capacity.
- Producing “Class A” biosolids suitable for marketing and distribution as a commercial product with a modicum of additional processing.
- Eliminating the use of incinerators, which reduce greenhouse gas emissions and improves regional air quality.
- Assessing the condition of biosolids transfer pipelines to the Blue River WWTP to proactively prioritize improvements that will reduce the risk of potential leaks or spills (e.g., releases of untreated biosolids into the environment) from aging conveyance infrastructure.

- Extending the useful life of portions of the solids treatment facilities at the Blue River WWTP in an environmentally responsible way.
- Upgrading and replacing aging infrastructure while also maximizing the use of existing facilities, promoting the best use of existing assets, and extending asset value for the ratepayer.
- Optimizing and increasing the production of biogas as a byproduct of increased solids reduction and stabilization, creating an opportunity for a future phase of work to convert biogas to electrical power through cogeneration, sale or trade of biogas for industrial uses.
- Exploring synergistic and innovative public private partnership opportunities with nearby industrial users that may be willing to use the produced biogas to provide energy as steam.
- Providing reliable biosolids treatment required by environmental permits and critical to KC Water's wastewater system and services to its citizens.

## 2. New or innovative approaches: Describe the extent to which the project uses new or innovative approaches.

**The Blue River WWTP Biosolids Facility Project uses the following new or innovative approaches to achieve the project's goal of reliably improving and increasing its solids treatment capacity and improving treatment performance**:

- Applying a state-of-the-art biosolids THP, which will enhance solids treatment with production of "Class A" biosolids. Class A biosolids will give the City expanded beneficial land application, conservation of sanitary landfill capacity, and increased biogas production, a sustainable energy source for future direct or indirect use. THP will also expand the functional capacity of the existing anaerobic digesters, allowing treatment of twice the amount of biosolids than the original design/process.
- Exploring synergistic and innovative public-private partnership opportunities with at least one local industrial manufacturer. The manufacturer has expressed initial interest in providing energy as steam to the Blue River WWTP. Steam/heat is needed for the THP's operations and is a byproduct of the manufacturer's nearby processes. In a complimentary manner, the Blue River WWTP produces biogas (with increased biogas production through this project) and can potentially be used to meet the local manufacturer's energy needs.
- Maximizing use of the remaining useful life of existing infrastructure while replacing and upgrading treatment processes to eliminate obsolete technology (solids incineration) and replacing aging infrastructure in a manner that creates maximum value to the citizens served by the City.
- Providing a project delivery analysis process to help the City determine the best project delivery methodology for the Project. The City has expressed interest in using an alternative delivery approach, including design-build, to encourage designers and contractors to pursue innovation and creativity.

- Developing a Building Information Model (BIM) that will enhance constructability by helping to identify potential conflicts during design and provide a model that can be updated to enhance future planning, operation, and maintenance for the Blue River WWTP.
- Utilizing the BIM for Operation and Maintenance Training to provide a more objective and real-time decision based tool for new employee and upgrade training.

**3. Protection against extreme weather events: Describe the extent to which the project (1) protects against extreme weather events, such as floods or hurricanes, or (2) helps maintain or protect the environment.**

**A 500-year storm levy protects the Blue River WWTP Facility and Biosolids Treatment Facility area from extreme wet weather events.** While the region does not experience hurricanes or earthquakes, the Project's facility design accounts for extreme weather events and provides redundancy, as appropriate, to help ensure undisrupted service. In addition, while not associated with the Project, the City has implemented all of the scheduled elements to this point of its 2010 EPA Consent Decree, which aims to prevent pollution from wastewater overflows that would otherwise occur due to extreme wet weather events.

**The Project will eliminate the use of incinerators and reduce the overall greenhouse gas emissions associated with the biosolids handling processes.** The predominant sources of greenhouse gas emissions (carbon dioxide, methane, and nitrogen oxide) at WWTPs come from using energy for aeration and solids processing (i.e., stationary combustion and purchased electricity). Biosolids processing is a source of greenhouse gas (GHG) emissions at the Blue River WWTP, both in the form of direct (combustion) emissions from incineration using pipeline natural gas and from indirect emissions related to electricity purchased to power the process.

The Blue River WWTP Biosolids Facility project implements a state-of-the-art THP process and eliminates the use of incineration. The thermal hydrolysis project will use cleaned biogas to power boilers (Currently, all biogas is flared off producing greenhouse gas emissions.) These changes will improve regional air quality and reduce the City's contribution to climate change.

KC Water is using the Envision™ framework and GHG Analysis to help with its modified tripled bottom line decision-making process (environmental, community, financial, and operations). This analysis will help create a flexible, operable, and sustainable biosolids system.

**The Blue River WWTP Biosolids Facility Project helps to maintain and protect the region's water, air, and groundwater resources by:**

- Producing "Class A" biosolids that are safer to transport and will be more beneficially applied to farm lands to safely enhance soil nutrients and soil condition; these biosolids are prevent disposal at sanitary landfills to conserve regional landfill capacity.
- Producing "Class A" biosolids suitable for marketing and distribution as a commercial product.
- Assessing and identifying the condition of the biosolids transfer pipelines to the Blue River WWTP to proactively prioritize improvements to reduce the risk of potential leaks or spills

(e.g., releases of untreated biosolids into the environment, which could adversely impact rivers) from aging conveyance infrastructure.

- Optimizing and increasing the production of biogas as a byproduct of increased solids reduction and stabilization, creating an opportunity for a future phase of work to convert biogas to electrical power through cogeneration or the sale or trade of biogas for use by industry.

**4. Serves energy exploration or production areas: Describe the extent to which a project serves regions with significant energy exploration, development, or production areas.**

**This Project conserves energy and enhances sustainability by eliminating the use of natural gas at the Blue River WWTP within the existing incineration process.** The incineration process will be decommissioned and demolished for the Project. Furthermore, the THP deployed will significantly increase biogas production, paving the way for using the gas for THP steam generation and beneficial reuse of it for a future energy generation project or a public-private partnership to provide fuel for a local manufacturer. An alternative option is to provide cleaned biogas directly to the natural gas system. Discussions are currently in progress with a nearby local industrial user(s) who has expressed interest in attaining the biogas and in providing the Blue River WWTP with steam to support the THP. This synergistic opportunity is being pursued for this Project.

**5. Serves regions with water resource challenges: Describe the extent to which a project serves regions with significant water resource challenges, including the need to address (1) water quality concerns in areas of regional, national, or international significance; (2) water quantity concerns related to groundwater, surface water, or other resources; (3) significant flood risk; (4) water resource challenges identified in existing regional, state, or multistate agreements; and (5) water resources with exceptional recreational value or ecological importance.**

**The project will improve the overall performance of the Blue River WWTP through the planned provision of sidestream treatment, enhanced, reliable solids handling treatment, and improved overall wastewater plant performance**. The Blue River WWTP discharges treated effluent to the Missouri River, which is the source of water for many downstream communities, recreational use, and commercial utilization. The river flows approximately 553 miles through Missouri, transecting several major metropolitan areas. More than half of all Missourians receive their drinking water from the river.

Beneficial uses of the river include recreation, power generation, water supply, river commerce, and fish and wildlife. From the 1930s to the 1960s, six dams were constructed on the Missouri River, which created the largest reservoir system in the United States, with a capacity to store approximately 73 million acre-feet of water.

This region's water resource challenges pertain not so much the quantity of water, but rather to ensuring its protection. The Missouri River has been severely polluted and its water quality degraded by human activity. Most of the river's floodplain habitat has disappeared and been replaced by irrigated agricultural land. Development of the floodplain has increased the number

of people and amount of infrastructure within areas at high risk of inundation. Levees have been constructed along more than a third of the river to keep floodwater within the channel. This has led to a faster stream velocity and an increase of peak flows in downstream areas. In addition, fertilizer runoff, which causes elevated levels of nitrogen and other nutrients, is a major problem along the Missouri River, particularly in Missouri.

Decades of pollution have led to sharp declines in the health of the Missouri River and the past uses of the river have adversely impacted its commercial, recreational, and economic value. The Project helps protect water quality by assessing solids transfer pipelines, which allows for proactive planning to avoid failures and resultant release of untreated biosolids into the waterways. Project also replaces the existing biosolids treatment process, which utilizes significant quantities of water and produces side streams that can impact treated effluent water quality, thereby reducing impacts to the receiving stream. Finally, the project will also enable the City to more effectively treat phosphorus in the future, improving water quality and allowing for possible future sales of phosphorous.

### 6. Addresses identified priorities: Describe the extent to which the project addresses identified municipal, state, or regional priorities.

**The Project addresses, federal, state and municipal priorities.** This Project is considered one of the top priorities for the City and is the top priority in the 2018 CIP for KC Water. It replaces an obsolete and failing solids disposal technology (incineration) with a state-of-the-art biosolids handling facility that will provide sustained, environmentally appropriate biosolids treatment and handling for decades. It also helps actualize the City's strategy of leveraging new technologies while maximizing the use of existing infrastructure to provide pragmatic, economical, reliable, sustainable, and environmentally sound services to the system’s rate payers and citizens.

The Project is approved in the City's Capital Improvement Plan, and a Design Professional has been selected to represent KC Water in developing a Design Build procurement package. The conceptual and preliminary design is scheduled to commence in August of 2018.

The Project also supports the 2015 Energy Empowerment Ordinance adopted by the City of Kansas City, City Council. As part of the preliminary design, energy usage was evaluated and potential energy efficiency improvements were identified, including potential future opportunities for the sale of biogas and steam. As evaluated in Technical Memorandum 13, Energy and Resource Recovery (Attachment B-6), the proposed project will generate an estimated 228,000 scf/day or 50,000 MMBtu/year.

Four options for the beneficial use of biogas were identified and evaluated on a technical and financial basis, including raw biogas direct use, biogas cleanup, incinerator fuel, and thermal energy generation. The quadruple bottom line evaluation was completed for all options. The Wastewater Master Plan’s preferred option was renewal for CNG fuel, and the second was thermal energy generation. The CNG fuel option became impractical after our internal QBL

(Quadruple Bottom Line) analysis because thermal hydrolysis process will require the use of biogas for thermal energy to create high pressure steam.

In 2011, the US Environmental Protection Agency released the Clean Water and Drinking Water Infrastructure Sustainability Policy. This policy helped ensure that federal investments, policies, and actions support water infrastructure in efficient and sustainable locations so communities make wise clean water infrastructure investments, manage their operations and infrastructure, and support the sustainability of the communities they serve. The EPA's commitment to sustainable infrastructure has been implemented at the state level by the Missouri Department of Natural Resources in its Strategic Initiative Plan. With the Project, the Blue River WWTP will be able to support the sustainability of the community it serves.

**7. Repair, rehabilitation, or replacement: Describe the extent to which the project addresses needs for repair, rehabilitation or replacement of a treatment works, community water system, or aging water distribution or wastewater collection system.**

**The Blue River WWTP Biosolids Facility Project replaces, repairs, and rehabilitates the Blue River WWTP biosolids handling process units and conveyance system that were constructed in 1964.** With a 5-year CIP exceeding $1 billion, KC Water faces formidable challenges in providing adequate and reliable water and wastewater infrastructure services. KC Water continually invests in its infrastructure with ongoing investments in treatment process upgrades, repair, and maintenance projects.

As part of KC Water's Master Planning efforts, a condition assessment was performed that evaluated the biosolids handling equipment condition in each of the WWTPs to verify the treatment process capacity. The Blue River WWTP biosolids facility condition assessment identified numerous limitations in the treatment process, and the facilities were rated as "significantly deteriorated."

With the Blue River WWTP biosolids facility providing treatment for over 95 percent of the solids handling for KC Water's service area, the department has developed interim solutions in case of facility failure. This includes hauling biosolids to a landfill 55 miles away, as an interim solution. KC Water is also finalizing negotiations on a contract for lime stabilization. For these reasons, the Blue River WWTP Solids Improvement project is the top project in KC Water's 5-Year CIP.

The Project combines deployment of a state-of-the-art THP with refurbishing and repurposing the existing Solids Handling Building, refurbishing existing anaerobic digesters, and replacing inefficient and inadequate solids conditioning and dewatering unit processes with new processes compatible with the THP. KC Water will continue to proactively repair and maintain the proposed facilities and implement its BIM System to manage its assets to ensure the longevity of its facilities. **Once completed, the Project is expected to provide effective biosolids treatment for at least 30 years.**

**8. Economically stressed communities: Describe the extent to which the project serves economically stressed communities, or pockets of economically stressed rate payers within otherwise non- economically stressed communities.**

**The Blue River WWTP Biosolids Facility Project serves pockets of economically stressed ratepayers within otherwise non-economically stressed communities or economically stressed communities.** KC Water provides water, wastewater, and stormwater services to approximately 631,000 people in a five-county area and continues to invest in its infrastructure. Within KC Water's service area, is the City of Kansas City, Missouri, which has a population of 488,943 (2017 Census Data) and an unemployment rate of 3.8% (Bureau of Labor Statistics). The median household income (MHI), in Kansas City, Missouri, as reported by the US Census Bureau, was documented $47,489 (2016 dollars), which is below the MHI for Missouri and United States (see Attachment E-1: Economic Burden Slides - WIFIA Application).

KC Water is under Federal Consent Decree, which has largely contributed to an increase in rates of 291 percent since 2010. This has significantly affected the wastewater burden on significant portions of its customer base.

KC Water must use programs like WIFIA to provide borrowing cost relief for its already distressed rate base and provide cost-effective projects to address public concerns.

**9. Reduces exposure to lead: Describe the extent to which the project reduces exposure to lead in the nation's drinking water systems or ensures continuous compliance with contaminant limits.**

**The Blue River WWTP Biosolids Facility Project implements a THP process, eliminating the need for the three incinerators at the Blue River WWTP. This, in turn, reduces lead emissions from the WWTP Biosolids Processes by 100 percent.** The Clean Water Action Section 503 requires solids handling facilities, specifically incinerators, to control the amount of conventional, non-conventional, and toxic pollutants discharged into the air of the United States through air quality requirements included in the facility's air quality permit.

Sewage sludge incinerators can release harmful pollutant emissions including mercury, lead, cadmium, and hydrogen chloride. Some of the dioxins produced in the smoke stack released from the incinerators may be a cancer-forming chemical. While the single operating biosolids incinerator at the Blue River WWTP complies with its air quality permit, the smoke stack releases lead into the air, which could ultimately be deposited into the nearby Missouri River, a drinking water supply source for downstream utilities.

The annual average lead emission from the Blue River WWTP biosolids incinerator is 0.034 ton lead/year (based on a 7 years of data).

**10. Readiness to proceed: Describe the readiness of the project to proceed toward development, including a demonstration by the prospective borrower that there is a reasonable expectation that the contracting process for construction of the project can commence by not later than 90 days after the date on which a Federal credit instrument is obligated for the project.**

KC Water has approved the Project as part of the CIP, and City Council has approved the preliminary design phase contract (July 2018). The City and KC Water have spent approximately four years in planning and one year in internal predesign to develop a well-defined scope and additional operation and maintenance requirements for this project. An internal consensus has been reached on what the scope of this project will be and only minor changes in known areas are anticipated to its scope.

The Owner's Advisor will guide the City and KC Water through the decision process to select the most appropriate collaborative project delivery process (e.g., design build). The Owner's Advisor contract, which is expected to begin August 1, 2018, will have contractual deadlines for creating the bridging documents giving the City and KC Water clarity on the project schedule. The Owner's Advisor will also be responsible for preparing the conceptual and preliminary design documents, which will be provided to potential proposers as part of the procurement process.

KC Water executes many wastewater and water construction projects annually and effectively estimates and manages the required time for the City's internal processes and staff resources. Thus, City has a good understanding of the time required to provide a notice to proceed to the Project's contractor. Design activities will start in August 2018 and are anticipated to end in October 2019. Contractor procurement activities are anticipated to be completed by March 2020 and construction to start immediately thereafter in April 2020.

**Assuming an estimated Financial Close date of January 2020, KC Water will be ready to proceed with the construction of the Blue River WWTP Biosolids Facility Project within 90 days of a Federal credit instrument being obligated.**

**11. Enables project to proceed earlier: Describe the likelihood that assistance under WIFIA would enable the project to proceed at an earlier date than the project would otherwise be able to proceed.**

**A WIFIA loan for the Blue River WWTP Biosolids Facility Project would enable the project to proceed on schedule.**

Receiving WIFIA assistance will help KC Water address political considerations, including ratepayer fatigue and recommendations coming from the 16-member Mayoral-appointed task force. WIFIA financing for the Blue River WWTP Biosolids Facility Project, allows KC Water to put forth a regional project that aligns with the Task Force recommendations, developed through a series of public meetings conducted to analyze the financial aspects of Kansas City's current and long-term water, wastewater, and stormwater needs. In June 2017, the Task Force produced a list of recommendations, including:

- The City should include the pursuit of state and federal funds for water and wastewater infrastructure in its legislative agenda.
- KC Water should reduce future utility rate increases with revenue (when available) from state and federal programs.

Receipt of WIFIA assistance will help to reduce future utility rate increases and stabilize future rate impacts.

**12. Financing plan: Describe the extent to which the project financing plan includes public or private financing in addition to assistance under WIFIA.**

The Blue River WWTP Biosolids Facility Project was developed to address the repair and rehabilitation of aging infrastructure and will help address facility reliability and future capacity needs. Factors considered in the Project's development include a modified triple bottom line analyses (including economic, social, environmental, and operational factors), existing facility condition, regulatory requirements, and future capacity needs. The Project falls under KC Water's CIP and has been budgeted as such.

KC Water anticipates financing the project with revenue bonds secured by ratepayers to the public utility and, if awarded, federal/state assistance. It anticipates bond financing for the remaining portion of the capital project costs using wastewater service fees.

The WIFIA program is one avenue of low-interest loan funding KC Water is considering. KC Water will also apply for a low-interest loan with the State of Missouri Clean Water State Revolving Fund to construct the project.

**13. Reduction of Federal assistance: Describe the extent to which assistance under WIFIA reduces the contribution of Federal assistance to the project.**

**With an overall CIP of $5.6 billion dollars over the next 20 years, securing low interesting financing is critical to the Blue River WWTP Biosolids Facility Project's implementation.** The City of Kansas City, Missouri, has identified a multi-tier funding strategy with the following potential sources of funding: Clean Water State Revolving Fund Loans, the WIFIA Program, public financing (e.g. revenue bonds), or a combination of the three.

The City is in the process of submitting a new CWSRF loan application for the Blue River WWTP Biosolids Facility Project. At the time of application, however, the amount of CWSRF funding available for the project is unclear. KC Water is applying to the WIFIA program for the project to 1) secure an alternate source of flexible, low interest financing for the Project (leveraging the assistance required by CWSRF); 2) provide the City with the ability to fund the Project with both WIFIA and CWSRF funding (complementing the requested CWSRF assistance with a 49% WIFIA Loan); or 3) provide the City with the ability to fund the Project with both WIFIA and private financing.

## Section F: Contact Information

### 1. Primary point of contact

Name: Scott Parker
Title: Utility Asset Manager
Organization: KC Water
Street Address: 4800 E. 63rd Street
City/State/Zip: Kansas City, MO 64130
Phone: 816-513-0260
E-mail: Scott.Parker@kcmo.org

### 2. Secondary point of contact

Name: Matt Bond
Title: Chief Engineering Officer
Organization: KC Water
Street Address: 4800 E. 63rd Street
City/State/Zip: Kansas City, MO 64130
Phone: 816-513-0168
E-mail: matt.bond@kcmo.org

## Section G: Certifications

*Please sign in the appropriate space and submit a scanned version of the signature page to EPA with your electronic Letter of Interest submission.*

**1.** *National Environmental Policy Act:* The prospective borrower acknowledges that any project receiving credit assistance under this program must comply with all provisions of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)

**2.** *American Iron and Steel:* The prospective borrower acknowledges that any project receiving credit assistance under this program for the construction, alteration, maintenance, or repair of a project may only use iron and steel products produced in the United States and must comply with all applicable guidance.

**3.** *Prevailing Wages*: The prospective borrower acknowledges that all laborers and mechanics employed by contractors or subcontractors on projects receiving credit assistance under this program shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the immediate locality, as determined by the Secretary of Labor, in accordance with sections 3141-3144, 3146, and 3147 of Title 40 (Davis-Bacon wage rules).

**4.** *Lobbying:* Section 1352 of Title 31, United States Code provides that none of the funds appropriated by any Act of Congress may be expended by a recipient of a contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, or an employee of a Member of Congress in connection with the award or making of a Federal contract, grant, loan, or cooperative agreement or the modification thereof. The EPA interprets this provision to include the use of appropriated funds to influence or attempt to influence the selection for assistance under the WIFIA program.

WIFIA prospective borrowers must file a declaration: (a) with the submission of an application for WIFIA credit assistance; (b) upon receipt of WIFIA credit assistance (unless the information contained in the declaration accompanying the WIFIA application has not materially changed); and (c) at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any declaration previously filed in connection with the WIFIA credit assistance.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement,

the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
- This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

5. *Debarment:* The undersigned further certifies that it is not currently, nor has it been in the preceding three years: 1) debarred, suspended, or declared ineligible from participating in any Federal program; 2) formally proposed for debarment, with a final determination still pending; 3) voluntarily excluded from participation in a Federal transaction; or 4) indicted, convicted, or had a civil judgment rendered against it for any of the offenses listed in the Regulations Governing Debarment and Suspension (Government wide Non-procurement Debarment and Suspension Regulations: 2 C.F.R. Part 180 and Part 1532.
6. *Default/Delinquency:* The undersigned further certifies that neither it nor any of its subsidiaries or affiliates are currently in default or delinquent on any debt or loans provided or guaranteed by the Federal Government.
7. *Other Federal Requirements*: The prospective borrower acknowledges that it must comply with all other federal statutes and regulations, as applicable. A non-exhaustive list of federal cross-cutting statutes and regulations can be found at: www.epa.gov/wifia.
8. *Signature:* By submitting this letter of interest, the undersigned certifies that the facts stated and the certifications and representations made in this letter of interest are true, to the best of the prospective borrower's knowledge and belief after due inquiry, and that the prospective borrower has not omitted any material facts. The undersigned is an authorized representative of the prospective borrower.

Signature: 

Date Signed: 7/27/2018

Name: Terry Leeds
Title: Director
Organization: KC Water
Street Address: 4800 E. 63rd Street
City/State/Zip: Kansas City, MO 64130
Phone: 816-513-0203
E-mail: terry.leeds@kcmo.org

## Section H: Notification of State Infrastructure Financing Authority

***Please sign in the appropriate space and submit a scanned version of the signature page to EPA with your electronic Letter of Interest submission.***

**By submitting this letter of interest, the undersigned acknowledges that EPA will (1) notify the appropriate State infrastructure financing authority in the State in which the project is located that the prospective borrower submitted this letter of interest; and (2) provide the submitted letter of interest and all source documents to that State infrastructure financing authority.**

**Prospective borrowers that do not want their letter of interest and source documents shared with the State infrastructure financing authority in the state in which the project is located may opt out by initialing here _____.**

**If a prospective borrower opts out of sharing a letter of interest, EPA will still notify the State infrastructure financing authority within 30 days of receiving a letter of interest.**

**Signature:** _____

**Name: Terry Leeds, Director, KC Water**

**Date Signed:** 7/27/2018